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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,381	07/22/2003	Yoshito Nakanishi	MAT-8439US	6834
23122	7590	09/22/2004	EXAMINER	
RATNERPRESTIA			ROJAS, BERNARD	
P O BOX 980			ART UNIT	PAPER NUMBER
VALLEY FORGE, PA 19482-0980			2832	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/624,381	NAKANISHI ET AL.	
	Examiner	Art Unit	
	Bernard Rojas	2832	<i>AR</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 7,8,12,18-21 and 24-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,10,11,13-17,22 and 23 is/are rejected.
- 7) ☒ Claim(s) 5 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>02092004, 07222003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Embodiment 1 in the reply filed on 09/09/2004 is acknowledged. The traversal is on the ground(s) that Claim 1 is generic and all of Embodiments 1-5 relate to switches under construction of three beams or electrodes. Claim 1 is generic to Embodiments 1-5. Accordingly all claims to non elected embodiments will be withdrawn from further consideration pursuant to 37 CFR 1.142(b), there being no allowable generic or linking claim. Applicant is reminded that upon allowance of a generic claim, the withdrawn claims dependant upon the generic claim will be rejoined.

The requirement is still deemed proper and is therefore made FINAL.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the " the first, second and third beams are arranged vertically" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 10, 11, 14, 15, 17 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Kong et al. [US 6,218,911 B1].

Claim 1, Kong et al. discloses a switch [figure 2] comprising a first [28], second [24] and third [26] beams arranged with constant spacing from one another; and voltage applying means [RF in] for providing a direct current potential to the first, second and third beams and applying a driving force to the first, second and third beams.

Claim 2, Kong et al. discloses that when turning on the switch, the voltage applying means generates a drive force between the first beam and the second beam thereby placing the first beam and the second beam into a contact and electric coupling while, when turning off the switch, a drive force is caused between the second beam and the third beam thereby isolating between the first beam and the second beam [figures 2 and 3, operation].

Claim 3, Kong et al. discloses that the first, second and third beams are arranged with a spacing satisfying a predetermined isolation [figures 2 and 3].

Claim 4, Kong et al. discloses that the voltage applying means is to apply a direct current potential to the first, second and third beams for a predetermined time [operation].

Claim 10, Kong et al. discloses that a drive force is not caused on the third beam and the third beam is not moved [figures 2 and 3].

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Claim 11, Kong et al. discloses that the first beam is connected to an antenna end [RF out], the second end beam is connected to an input terminal [RF in] and the third beam is terminated at a predetermined resistance value [Terminating Resistor 42].

Claim 14, Kong et al. discloses that any of the first, second and third beams is formed of a metal.

Claim 15, Kong et al. discloses that the first, second and third beams are arranged horizontally, any of the first, second and third beams are to move horizontally [figures 2 and 3].

Claim 17, Kong et al. discloses that capacitances [30 and 40] are arranged between the first beam and the antenna end and between the second beam and the input terminal [figures 2 and 3].

Claim 23, Kong et al. discloses that the drive force is electrostatic [].

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 13, 16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kong et al. [US 6,218,911 B1].

Claim 6, Kong et al. discloses the claimed invention except for changing the spring constant of the beam by changing the shape of the beam. It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the shape of the beam in order to obtain a desired spring constant since it was known in the art that changing the shape of the deflection beam will alter its spring constant.

Claim 13, Kong et al. discloses that the claimed invention with the exception of creating a group of switches by arranging a plurality of switches according to claim 1 in parallel. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a circuit by using a group of switches in order to perform a specific task, i.e. a signal generator/modulator.

Claim 16, Kong et al. discloses that the claimed invention with the exception of vertically aligning the beams. It would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the beams vertically instead of horizontally. Since applicant has not disclosed that the vertical arrangement solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the disclosed horizontal arrangement.

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Claim 22, Kong et al. discloses that the claimed invention with the exception of any of the first second and third beams is different in thickness from an adjacent one thereof. It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the thickness of the beam in order to modify its actuation voltage threshold.

Allowable Subject Matter

Claims 5 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00), every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Br



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